Dear Sir/Madam,

My name is Brianna Sampson and I am currently a final year student studying Physics at the University of the West Indies. I am expected to graduate in May 2025.

In the past, I have worked with data pertaining to astrophysical phenomena but nothing that could directly impact people and more specifically, the people of Trinidad and Tobago. Enrolling in 'PHYS 3158- Fundamentals of Renewable Energy' enhanced by understanding of renewable energy sources but it also introduced me to PhD candidates whose research could directly benefit Trinidad and Tobago. Priscilla J. Sahadeo understood the drying kinetics under various drying conditions to improve the quality of fine flavor cocoa. Sahadeo engaged closely with the drying regime of fine flavor cocoa and optimized the process so that greenhouse drying can be used to manufacture high-quality fine flavor cocoa to export to the global market and increase cocoa sales in the North American and European market. Furthermore, Randy Ramadhar Singh researched if there was a pathway for a just energy transition for Trinidad and Tobago. Trinidad and Tobago's shift to renewable sources from using natural gas to generate all of its electricity would include distributional, recognition, procedural and restorative tenets that must be considered. Through research on 100 MW wind modelled on Trinidad and Tobago's electricity grid, it was discovered that the avoided cost per month was at $1.31 USD. Therefore, this could be the pathway forward to balance justice with sustainability by switching to renewables for power generation. I would like to make Trinidad and Tobago less dependent on natural gas to generate all of its electricity but this transition must also be inclusive, fair and balanced for the citizens of Trinidad and Tobago so that the price of electricity remains affordable. Trinidad and Tobago would use wind and solar photovoltaic cells for a fraction of their energy generation for now. This could also be implemented to the wider Caribbean region with the renewable energy sources already being used as well as other renewable energy sources that could be applied based on relevant data provided.

With the real-word data collected, my data analysis and processing skills as well as my statistical analysis skills could be applied and improved. Working with the Caribbean Centre for Renewable Energy and Energy Efficiency will provide me with more research experience before I pursue my PhD in Physics. I am mainly interested in theoretical physics but through engaging with oceanography, geohydrology and renewable energy through UWI courses and researching hurricanes my final year project, I have gained an appreciation for environmental sciences and

would like to deepen my knowledge bases before I solely commit to one aspect of physics. Additionally, I imagine a Trinidad and Tobago that could be fully sustained by renewable energy sources or mostly sustained by them. Through using the resources provided and the practical skills learnt throughout this internship, I could deduct my own answer and possibly project a date that this could be accomplished.

Thank you for your time and consideration.

Kind regards,

Brianna Sampson.